



Dart Hawkesbury
1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada
Tel (613) 632-5200

Purchasing Receipts

PO No	Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Serial No	Status	Receive Date	Price/Unit	Aging Days	
PO038581	TWM001-VU	1	1	Net 30	M6061T6T0.3125W.058	Aluminum Tube .3125 X .058W : MATERIAL: 6061-T6/T62/T6510/T6511 SEAMLESS TUBING AS PER WW-T-700/8 OR QQ-A-200/8 OR QQ-A-225/8 OR AMS 4080 OR AMS 40 82 OR AMS 4083 OR ASTM B210 OR ASTM B241 receive ft				100	12/14/2017	100		S020706	Stock	12/12/2017	\$ 2.50 / pcs	0	
		2			M6061T6T0.375W.058	6061-T6 Round Tube .375 X.058W : MATERIAL: 6061-T6/T62/T6510/T6511 SEAMLESS TUBING AS PER WW-T-700/8 OR QQ-A-200/8 OR QQ-A-225/8 OR AMS 4080 OR AMS 40 82 OR AMS 4083 OR ASTM B210 OR ASTM B241 receive ft						100		S020707	Stock	12/12/2017	\$ 2.15 / pcs	0	
		3			M6061T6T0.500W.058	6061-T6 Round Tube .500 X.058W : MATERIAL: 6061-T6/T62/T6510/T6511 SEAMLESS TUBING AS PER WW-T-700/8 OR QQ-A-200/8 OR QQ-A-225/8 OR AMS 4080 OR AMS 40 82 OR AMS 4083 OR ASTM B210 OR ASTM B241 receive ft						100		S020708	Stock	12/12/2017	\$ 1.75 / pcs	0	
		4			M304TR0.500W.049	304 Round Tube .500 X .049W : MATERIAL: AISI 304/316 SS SEAMLESS ROUND TUBING AS PER ASTM A213 OR ASME SA213 OR ASTM A269 receive ft				60		60		S020709	Stock	12/12/2017	\$ 2.80 / pcs	0	
Total:										360		360							

Plex 12/12/2017 1:36 PM Dart Dubois.Pascal



O'Neal High-Performance Metals Group



Packing Slip

ORDER NO.: 60645377

FROM: CRAN

PAGE 1

CUST NUMBER: 1203820 NET WGT: 37.599 REQ.DATE: 12/14/17 CONFIRMED
SOLD TO: SHIP TO:
DART AEROSPACE LTD DART AEROSPACE LTD
1270 ABERDEEN ST 1270 ABERDEEN ST
HAWKESBURY ON HAWKESBURY ON
CANADA CN K6A 1K7 ONTARIO CANADA CN K6A 1K7

SALESPERSON: DONNA SMALLEY SHIP BY: 12/07/17
TERMS: NET 30 DAYS VIA: COMMON CARRIER
F.O.B.: SHIPPING POINT FREIGHT: PREPAID
CUST ORD NO.: PO038581 RELEASE NO.:
RECEIVING PHONE:

LINE	ITEM	DESCRIPTION	WIDTH	LENGTH
0001	41723	D6061-T6 5/16 OD X .058 WA		12 FT ML

CLN#	ORD QTY	INVOICE QTY	SHIPPED QTY	WT	PCS
	108.000 FT	108.000 FT	108.000 FT	5.897	

** 1 TEST REPORTS REQUIRED **

** 1 CERTS REQUIRED **

ECCN: EAR99 Export License: NLR Expiration Date: 0/00/00
PO:49373738 HT:2289533 PC: 9 CUSTOMER QTY: UOM
MLT:UNITED STATES MFG:UNITED STATES SLB/CL:461694

LINE	ITEM	DESCRIPTION	WIDTH	LENGTH
0002	41952	D6061-T6 3/8 OD X .058 WA		12 FT ML

CLN#	ORD QTY	INVOICE QTY	SHIPPED QTY	WT	PCS
	108.000 FT	108.000 FT	108.000 FT	7.322	

** 1 TEST REPORTS REQUIRED **

** 1 CERTS REQUIRED **

ECCN: EAR99 Export License: NLR Expiration Date: 0/00/00
PO:49376296 HT:F002504860001 PC: 9 CUSTOMER QTY: UOM
MLT:UNITED STATES MFG:UNITED STATES SLB/CL:224194

LINE	ITEM	DESCRIPTION	WIDTH	LENGTH
0003	42276	D6061-T6 1/2 OD X .058 WA		12 FT ML

CLN#	ORD QTY	INVOICE QTY	SHIPPED QTY	WT	PCS
	108.000 FT	108.000 FT	108.000 FT	10.225	

** 1 TEST REPORTS REQUIRED **

** 1 CERTS REQUIRED **

ECCN: EAR99 Export License: NLR Expiration Date: 0/00/00
PO:49378297 HT:F002542390002 PC: 9 CUSTOMER QTY: UOM
MLT:UNITED STATES MFG:UNITED STATES SLB/CL:224471

THANK YOU FOR THIS ORDER

TERMS AND CONDITIONS APPLICABLE TO THE SALE OF THESE
PRODUCTS ARE SET FORTH ON OUR WEBSITE FOR YOUR CAREFUL
REVIEW.
<http://www.twmetals.com/invoice-terms.html>



O'Neal High-Performance Metals Group



**Packing
Slip**

ORDER NO.: 60645377

FROM: CRAN

PAGE 2

CUST NUMBER: 1203820 NET WGT: 37.599 REQ.DATE: 12/14/17 CONFIRMED
SOLD TO: SHIP TO:
DART AEROSPACE LTD DART AEROSPACE LTD
1270 ABERDEEN ST 1270 ABERDEEN ST
HAWKESBURY ON HAWKESBURY ON
CANADA CN K6A 1K7 ONTARIO CANADA CN K6A 1K7

SALESPERSON: DONNA SMALLEY SHIP BY: 12/07/17
TERMS: NET 30 DAYS VIA: COMMON CARRIER
F.O.B.: SHIPPING POINT FREIGHT: PREPAID
CUST ORD NO.: PO038581 RELEASE NO.:
RECEIVING PHONE:

LINE	ITEM	DESCRIPTION	WIDTH	LENGTH
0004	36506	SMLS CD 304/L A269 1/2 OD X .049 WA		20' ML

CLN#	ORD QTY	INVOICE QTY	SHIPPED QTY	WT	PCS
	60.000 FT	60.000 FT	60.000 FT	14.155	

** 1 TEST REPORTS REQUIRED **

** 1 CERTS REQUIRED **

ECCN: 2B999.g Export License: NLR Expiration Date: 0/00/00
PO:49336439 HT: YX1506712 PC: 3 CUSTOMER QTY: UOM
MLT:CHINA MFG:CHINA SLB/CL:12-19

BROKERS KUEHNE AND NAGEL LTD

AREA		TYPE OF PKG	PKGS	GRS	WEIGHT	WIDTH	LENGTH	HGHT
NEW PEN	CARTON		1.000		33.444	4.0000	150.0000	4
Orders In Package	- 1		Box	No -	TWPK17009810			
NEW PEN	CARTON		1.000		34.155	3.0000	248.0000	3
Orders In Package	- 1		Box	No -	TWPK17009811			
			2.000		67.599			

BY: Tom Weaver
RT 000-

UNLOAD TYPE: NONE SPECIFIED

DATE SHIPPED _____

1

DATE FILLED _____

THANK YOU FOR THIS ORDER

TERMS AND CONDITIONS APPLICABLE TO THE SALE OF THESE
PRODUCTS ARE SET FORTH ON OUR WEBSITE FOR YOUR CAREFUL
REVIEW.
<http://www.twmetals.com/invoice-terms.html>



O'Neal High-Performance Metals Group



**Packing
Slip**

ORDER NO.: 60645377

FROM: CRAN

PAGE 3

CUST NUMBER: 1203820	NET WGT: 37.599	REQ.DATE: 12/14/17	CONFIRMED
SOLD TO:	SHIP TO:		
DART AEROSPACE LTD	DART AEROSPACE LTD		
1270 ABERDEEN ST	1270 ABERDEEN ST		
HAWKESBURY ON	HAWKESBURY ON		
CANADA	CN K6A 1K7	ONTARIO CANADA	CN K6A 1K7

SALESPERSON: DONNA SMALLEY	SHIP BY: 12/07/17
TERMS: NET 30 DAYS	27 ENGLEHARD DRIVE
F.O.B.: SHIPPING POINT	MONROE TWP NJ 08831
CUST ORD NO.: PO038581	
VIA: COMMON CARRIER	
FREIGHT: PREPAID	
RELEASE NO.:	
RECEIVING PHONE:	

"TW Metals MSDS data is available on our web site at www.twmetals.com. MSDS data can be found under the Technical Resources Tab, Product Statistics & Data and the TW Metals MSDS's heading. If you do not have web site access you may telephone 610-458-1300 and we will mail or fax a copy of our current MSDS data to your location."

"CERTIFICATE OF CONFORMANCE"

"TW Metals certifies that the material supplied on this purchase order and contained in the heat/lot number referenced above has been manufactured, inspected, and tested in accordance with the material specification. These records are on file at TW Metals. Packaging material for shipments to Europe and China consists of manufactured wood products and complies with the European emergency measures for coniferous non-manufactured wood packing material"

Authorized Test Report Clerk *James Hallen* Date: 12/06/17

These commodities have been exported from the United States in accordance with the U.S. export control laws, export administrations regulations. Diversion contrary to U.S. law prohibited.

THANK YOU FOR THIS ORDER

TERMS AND CONDITIONS APPLICABLE TO THE SALE OF THESE PRODUCTS ARE SET FORTH ON OUR WEBSITE FOR YOUR CAREFUL REVIEW.
<http://www.twmetals.com/invoice-terms.html>



27 ENGLEHARD DRIVE
 MONROE TWP NJ 08831
 Tel: 609-655-4120
 FAX: 6096552603

Invoice#: 60645377
 Cust. PO#: PO038581
 Incoterms: SHIPPING POINT
 Frt. Terms: PREPAID
 Ship Via: COMMON CARRIER

COMMERCIAL INVOICE

Sold To: DART AEROSPACE LTD 1270 ABERDEEN ST HAWKESBURY ON CANADA CN K6A 1K7 C Contact: CHANTAL 16136321053	Invoice Date: 12/07/17
	Ship Date: 12/07/17
	Payment Terms: NET 30 DAYS
	Ship To/Final Destination: DART AEROSPACE LTD 1270 ABERDEEN ST HAWKSBURY ON ONTARIO CANADA CN K6A 1K7
Freight Forwarder/Intermediate Ship To:	

ITEM#/LINE#	DESCRIPTION	QUANTITY	UNIT	VALUE	SUBTOTAL
41723	D6061-T6 5/16 OD X .058 WA	108.000	FT	\$ 2.5000	\$ 270.00
		0	IN		
1	ALUMINUM TUBE ROUND	9.000	PC		
	PART NUMBER:				
	ECCN: EAR99				
	SCHEDULE B: 7608.20.0030				
	ALUM PIPE/TUBE - SEAMLESS				
	NET WGT: 5.897 LBS				
	COUNTRY OF MFG: UNITED STATES				
41952	D6061-T6 3/8 OD X .058 WA	108.000	FT	\$ 2.1500	\$ 232.20
		0	IN		
2	ALUMINUM TUBE ROUND	9.000	PC		
	PART NUMBER:				
	ECCN: EAR99				
	SCHEDULE B: 7608.20.0030				
EXPORT LICENSE NUMBER: NLR EXPIRATION DATE: 00/00/00					
TW METALS, INC CERTIFIES THAT THE COUNTRY OR COUNTRIES OF MANUFACTURE INDICATED ABOVE IS TRUE AND CORRECT AS CONTAINED IN THE RECORDS OF TW METALS, INC. THESE ITEMS ARE CONTROLLED BY THE U.S. GOVERNMENT AND AUTHORIZED FOR EXPORT ONLY TO THE COUNTRY OF ULTIMATE DESTINATION FOR USE BY THE ULTIMATE CONSIGNEE OR END-USER(S) HEREIN IDENTIFIED. THEY MAY NOT BE RESOLD, TRANSFERRED, OR OTHERWISE DISPOSED OF, TO ANY OTHER COUNTRY OR TO ANY PERSON OTHER THAN THE AUTHORIZED ULTIMATE CONSIGNEE OR END-USER(S), EITHER IN THEIR ORIGINAL FORM OR AFTER BEING INCORPORATED INTO OTHER ITEMS, WITHOUT FIRST OBTAINING APPROVAL FROM THE U.S. GOVERNMENT OR AS OTHERWISE AUTHORIZED BY U.S. LAW AND REGULATIONS.					
Page 1					CONTINUE



27 ENGLEHARD DRIVE
 MONROE TWP NJ 08831
 Tel: 609-655-4120
 FAX: 6096552603

Invoice#: 60645377
 Cust. PO#: P0038581
 Incoterms: SHIPPING POINT
 Frt. Terms: PREPAID
 Ship Via: COMMON CARRIER

COMMERCIAL INVOICE

Sold To: DART AEROSPACE LTD 1270 ABERDEEN ST HAWKESBURY ON CANADA CN K6A 1K7 C Contact: CHANTAL 16136321053	Invoice Date: 12/07/17
	Ship Date: 12/07/17
	Payment Terms: NET 30 DAYS
Freight Forwarder/Intermediate Ship To:	Ship To/Final Destination: DART AEROSPACE LTD 1270 ABERDEEN ST HAWKESBURY ON ONTARIO CANADA CN K6A 1K7

ITEM# / LINE#	DESCRIPTION	QUANTITY	UNIT	VALUE	SUBTOTAL
	ALUM PIPE/TUBE - SEAMLESS				
	NET WGT: 7.322 LBS				
	COUNTRY OF MFG: UNITED STATES				
42276	D6061-T6 1/2 OD X .058 WA	108.000	FT	\$ 1.7500	\$ 189.00
		0	IN		
3	ALUMINUM TUBE ROUND	9.000	PC		
	PART NUMBER:				
	ECCN: EAR99				
	SCHEDULE B:7608.20.0030				
	ALUM PIPE/TUBE - SEAMLESS				
	NET WGT: 10.225 LBS				
	COUNTRY OF MFG: UNITED STATES				
36506	SMLS CD 304/L A269 1/2 OD X .049 WA	60.000	FT	\$ 2.8000	\$ 168.00
		0	IN		
4	STAINLESS STEEL TUBE ROUND	3.000	PC		
	PART NUMBER:				
	EXPORT LICENSE NUMBER: NLR				
	EXPIRATION DATE: 00/00/00				
	TW METALS, INC CERTIFIES THAT THE COUNTRY OR COUNTRIES OF MANUFACTURE INDICATED ABOVE IS TRUE AND CORRECT AS CONTAINED IN THE RECORDS OF TW METALS, INC. THESE ITEMS ARE CONTROLLED BY THE U.S. GOVERNMENT AND AUTHORIZED FOR EXPORT ONLY TO THE COUNTRY OF ULTIMATE DESTINATION FOR USE BY THE ULTIMATE CONSIGNEE OR END-USER(S) HEREIN IDENTIFIED. THEY MAY NOT BE RESOLD, TRANSFERRED, OR OTHERWISE DISPOSED OF, TO ANY OTHER COUNTRY OR TO ANY PERSON OTHER THAN THE AUTHORIZED ULTIMATE CONSIGNEE OR END-USER(S), EITHER IN THEIR ORIGINAL FORM OR AFTER BEING INCORPORATED INTO OTHER ITEMS, WITHOUT FIRST OBTAINING APPROVAL FROM THE U.S. GOVERNMENT OR AS OTHERWISE AUTHORIZED BY U.S. LAW AND REGULATIONS.				
	Page	2			CONTINUE



27 ENGLEHARD DRIVE
 MONROE TWP NJ 08831
 Tel: 609-655-4120
 FAX: 6096552603

Invoice#: 60645377
 Cust. PO#: P0038581
 Incoterms: SHIPPING POINT
 Frt. Terms: PREPAID
 Ship Via: COMMON CARRIER

COMMERCIAL INVOICE

Sold To: DART AEROSPACE LTD 1270 ABERDEEN ST HAWKESBURY ON CANADA CN K6A 1K7 C Contact: CHANTAL 16136321053	Invoice Date: 12/07/17
	Ship Date: 12/07/17
	Payment Terms: NET 30 DAYS
Freight Forwarder/Intermediate Ship To:	Ship To/Final Destination: DART AEROSPACE LTD 1270 ABERDEEN ST HAWKESBURY ON ONTARIO CANADA CN K6A 1K7

ITEM# / LINE#	DESCRIPTION	QUANTITY	UNIT VALUE	SUBTOTAL
	ECCN: 2B999.g SCHEDULE B: 7304.41.0000 S/S PIPE/TUBE ROUND SMLS W/OD </=3" NET WGT: 14.155 LBS COUNTRY OF MFG: CHINA QUANTITY AND TYPE OF BOXES: 1 CARTON 150.0000 X 4.0000 X 4.0000 TOTAL WGT: 33.444 LBS GROSS WGT: 33.444 LBS 1 CARTON 248.0000 X 3.0000 X 3.0000 TOTAL WGT: 34.155 LBS GROSS WGT: 34.155 LBS			
EXPORT LICENSE NUMBER: NLR EXPIRATION DATE: 00/00/00				
TW METALS, INC CERTIFIES THAT THE COUNTRY OR COUNTRIES OF MANUFACTURE INDICATED ABOVE IS TRUE AND CORRECT AS CONTAINED IN THE RECORDS OF TW METALS, INC. THESE ITEMS ARE CONTROLLED BY THE U.S. GOVERNMENT AND AUTHORIZED FOR EXPORT ONLY TO THE COUNTRY OF ULTIMATE DESTINATION FOR USE BY THE ULTIMATE CONSIGNEE OR END-USER(S) HEREIN IDENTIFIED. THEY MAY NOT BE RESOLD, TRANSFERRED, OR OTHERWISE DISPOSED OF, TO ANY OTHER COUNTRY OR TO ANY PERSON OTHER THAN THE AUTHORIZED ULTIMATE CONSIGNEE OR END-USER(S), EITHER IN THEIR ORIGINAL FORM OR AFTER BEING INCORPORATED INTO OTHER ITEMS, WITHOUT FIRST OBTAINING APPROVAL FROM THE U.S. GOVERNMENT OR AS OTHERWISE AUTHORIZED BY U.S. LAW AND REGULATIONS.				
Payable in US Dollars				Sales Tax .00 859.20
Page		3		



PH: 5857685600
FX: 15857685601

* REPRINT *

ORDER ACKNOWLEDGEMENT

SOLD TO: DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON
CANADA CN K6A 1K7

SHIP TO: DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON
ONTARIO CANADA CN K6A 1K7

PH: 613-632-9577
FX: 16136321053
ORIG. QUOTE# 12223601

Order Number 60645377

Contact: CHANTAL

Customer PO Number PO038581

Order Date 12/06/17

F.O.B. Point SHIPPING POINT

Freight Terms PREPAID

Ship Via COMMON CARRIER

Terms NET 30 DAYS

Customer Account Number 1203820

PAGE 1 OF 1

Item No.	Quantity	Description	Unit Price	Extended Price	Est Del Date
41723	108 FT	D6061-T6 5/16 OD X .058 WA LENGTH 12 FT ML	2.5000 FT	270.00 WGT 5.897	12/14/17
41952	108 FT	D6061-T6 3/8 OD X .058 WA LENGTH 12 FT ML	2.1500 FT	232.20 WGT 7.322	12/14/17
42276	108 FT	D6061-T6 1/2 OD X .058 WA LENGTH 12 FT ML	1.7500 FT	189.00 WGT 10.225	12/14/17
36506	60 FT	SMLS CD 304/L A269 1/2 OD X .049 WA LENGTH 20' ML	2.8000 FT	168.00 WGT 14.155	12/14/17
SALES TAX					
TOTALS				859.20	
WEIGHT (LBS)				37.599	

This Order Acknowledgement confirms the requirements that you specified when you placed your order with TW Metals. The order is subject to TW Metals' Terms and Conditions of Sale, a copy of which is incorporated herein by reference and available at www.TWMetals.com, and any conflicting or additional terms and conditions appearing or referred to in your order, shall have no effect.

YOUR ORDER IS GREATLY APPRECIATED AND WILL RECEIVE OUR PROMPT AND CAREFUL ATTENTION

By DONNA SMALLEY

Signature:



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO038581**

Supplier: TWM001-VU
TW Metals
PO Box 933014
Atlanta, GA 31193-3014 USA
Phone: 585 768 5600
Fax: 585 768 5601

PO No: PO038581

PO Date: 12/6/17

Due Date: 12/14/17

Purchase Order
Revision:

Revision Date:

Ship-To Contact: Lavoie, Chantal
clavoie@dartaero.com

E-MAILED
DEC 06 2017

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground

Pynt Terms: Net 30

Freight Terms:

Special Comments:

Items

Line Item	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1	M6061T6T0.3125W.058 <i>5020706</i>	Aluminum Tube .3125 X .058W : MATERIAL: 6061- T6/T62/T6510/T6511 SEAMLESS TUBING AS PER WW-T-700/8 OR QQ-A-200/8 OR QQ-A-225/8 OR AMS 4080 OR AMS 40 82 OR AMS 4083 OR ASTM B210 OR ASTM B241 receive ft	Firmed	12/14/17	100 pcs	0 pcs	100 pcs	\$2.50/pcs	\$250.00
2	M6061T6T0.375W.058 <i>5020707</i>	6061-T6 Round Tube .375 X.058W : MATERIAL: 6061- T6/T62/T6510/T6511 SEAMLESS TUBING AS PER WW-T-700/8 OR QQ-A-200/8 OR QQ-A-225/8 OR AMS 4080 OR AMS 40 82 OR AMS 4083 OR ASTM B210 OR ASTM B241 receive ft	Firmed	12/14/17	100 pcs	0 pcs	100 pcs	\$2.15/pcs	\$215.00
3	M6061T6T0.500W.058 <i>5020708</i>	6061-T6 Round Tube .500 X.058W : MATERIAL: 6061- T6/T62/T6510/T6511 SEAMLESS TUBING AS PER WW-T-700/8 OR QQ-A-200/8 OR QQ-A-225/8 OR AMS 4080 OR AMS 40 82 OR AMS 4083 OR ASTM B210 OR ASTM B241 receive ft	Firmed	12/14/17	100 pcs	0 pcs	100 pcs	\$1.75/pcs	\$175.00
4	M304TR0.500W.049 <i>5020709</i>	304 Round Tube .500 X .049W : MATERIAL: AISI 304/316 SS SEAMLESS ROUND TUBING AS PER ASTM A213 OR ASME SA213 OR ASTM A269 receive ft	Firmed	12/14/17	60 pcs	0 pcs	60 pcs	\$2.80/pcs	\$168.00

Grand Total: \$808.00

Order Notes

Plex 12/6/17 1:35 PM dart.lavoie.chanta

Order Notes

Procurement Quality Clauses

A005 right of entry

A012 chemical and physical test report

A016 personnel qualification

A017 raw material identification (as applicable)

A026 certification of material conformance

A041 quality management system

A042 dart notification by supplier

A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.



Plex 12/6/17 1:35 PM dart.lavoie.chantal



PRECISION TUBE CO.
287 WISSAHICKON AVE.
NORTH WALES PA 19454

Control No: 4909

A COMPANY OF MUELLER INDUSTRIES

CERTIFIED TEST REPORT

CUSTOMER PURCHASE ORDER NO.	CUST. ORD. NO.	PRECISION TUBE P/N
M 49373738 LINE 001	461694	24A031250580005

SOLD: TW METALS
TO 175 TUBEWAY
FOREST PARK, GA 30298
UNITED STATES

SHIP: TW METALS
TO 175 TUBEWAY
FOREST PARK, GA 30298
UNITED STATES

QUANTITY ORD.	DESCRIPTION	QTY. SHIPPED	DATE SHIPPED
3500 FT	METAL - 6061 ALUM TEMPER - T6 SPEC - AMS 4082P <u>ASTM-B-210-12</u> AMS-WW-T-700/6C LENGTH - 12 FT LGTH TOL +.1250 IN -.0000 IN SHAPE - ROUND FINISH - STRAIGHT EXACT LENGTHS OD .3125 +.0030 -.0030 ID WALL .0580 +.0040 -.0040	3648 FT	08/08/17

MECHANICAL PROPERTIES

SAMPLE #	TENSILE STRENGTH (P.S.I.)	YIELD STRENGTH (P.S.I.)	ELONGATION IN 2 INCHES (%)	ROCKWELL HARDNESS	AVERAGE GRAIN SIZE (MM.)
1	46,136	40,185	18		

DESTRUCTIVE TESTS

Comments: FAR BAA COMPLIES, DFARS BAA COMPLIES, FAR TAA COMPLIES

NON-DESTRUCTIVE TESTS

EDDY CURRENT: PASS

CHEMICAL COMPOSITION

ALLOY: 6061		HEAT:		TRACEABILITY #: 2289533					
				RAW MATL VENDOR: PTC11774 - KAISER ALUMINUM					
	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Al
Min	0.40		0.15		0.80	0.04			Rem.
Max	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	
OTHER ELEMENTS: 0.05 MAX EACH / 0.15 MAX TOTAL									

TEST REPORTS
ACCEPTED BY
49373738
AUG 14 2017

TW METALS
[Signature]

We hereby certify that the material has been manufactured and tested in accordance with the requirements of the applicable specifications and descriptions set forth on Precision Tube's sales acknowledgement. During the manufacturing, testing and inspection, the product did not come into direct contact with mercury or any of its compounds, nor with any mercury containing device employing a single boundary containment. Test results indicate that the material is compliant with the current revision of the RoHS Directive (2011/65/EU).

Melted and Manufactured in USA
QMS Registered to ISO 9001: 2008

By: *[Signature]*
Matthew Flynn-Hepford
Quality Engineer

08/08/17

Page: 1 of 1

KAISER ALUMINUM FABRICATED PRODUCTS

Best in Class

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
2425 STEVENS DRIVE
RICHLAND, WA 99352

CUSTOMER PO NUMBER: PTC11774		CUSTOMER PART NUMBER: SPIRIT-371850		PRODUCT DESCRIPTION: 5.400 LB/PC .500 LB/0 LB 1.312 OD X .085 WALL ESRT	
KAISER ORDER NUMBER: 321818	LINE ITEM: 001	SHIP DATE: 05/26/2017	KAISER LOT NUMBER: 50751-362	ALLOY: 6061	TEMPER: O
WEIGHT SHIPPED: 8874.000 LB	QUANTITY: 1547.000 PCS	B/L NUMBER: 005368	DIAM/DAF/THKNS: 13.084 ET	WIDTH: 13.084 ET	LENGTH: 13.084 ET
SHIP TO: PRECISION TUBE CO 287 WISSAHICKON AVENUE N. WALES, PA 19454 USA			SOLD TO: MUELLER INDUSTRIES, INC PRECISION TUBE 8285 TOURNAMENT DRIVE STE. 150 MEMPHIS, TN 38125 USA		



Actual Physical Properties

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	%Elong in 2	HARDNESS	CONDUCT.	BEND.
50751-362	0001	0001	18.3	5.6	26.7	N/A	N/A	N/A
50751-362	0001	0002	17.9	5.3	28.1	N/A	N/A	N/A
50751-362	0001	0003	18.6	6.3	25.0	N/A	N/A	N/A
50751-362	0001	0004	18.5	5.8	24.9	N/A	N/A	N/A
50751-362	0001	0005	19.0	6.5	24.6	N/A	N/A	N/A
50751-362	0001	0006	18.7	6.2	25.8	N/A	N/A	N/A
50751-362	0001	0007	18.2	5.5	27.5	N/A	N/A	N/A
50751-362	0001	0008	18.0	5.5	25.9	N/A	N/A	N/A
50751-362	0001	0009	18.3	5.8	24.9	N/A	N/A	N/A

Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	.15
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	.0
A20304	.58	.31	.22	.05	.99	.09	.06	.03	.00	.00	.00	.01	.02
A20302	.58	.29	.23	.05	.99	.09	.05	.02	.00	.00	.00	.01	.02

Applicable Requirements:

ASTM-B241-16 NON-STENCILED ASTM-B221-14 ASTM-B345-11 AMS-QQ-A-200/8A TYPE I
UNS#A96061 Also conforms to EN 10204 3.1

Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA
MERCURY IS NOT A NORMAL BACKGROUND ELEMENT IN ALUMINUM ALLOYS. NEITHER MERCURY NOR ANY OF ITS COMPOUNDS ARE UTILITZED BY KAISER ALUMINUM IN THE MANUFACTURE OF THIS MATERIAL.

TEST REPORTS
ACCEPTED BY
49373738
AUG 14 2017

TW METALS
[Signature]

KAISER
ALUMINUM
FABRICATED PRODUCTS

Best in Class

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
2425 STEVENS DRIVE
RICHLAND, WA 99352

CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

JOSEPH AMES, QUALITY MANAGER

Jph

TEST REPORTS
ACCEPTED BY

AUG 14 2017

TW METALS

Quia Lamm

KAISER ALUMINUM FABRICATED PRODUCTS

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
6573 W. WILLIS ROAD
CHANDLER, AZ 85226

CUSTOMER PO NUMBER: M49376296-1		CUSTOMER PART NUMBER: 41952		PRODUCT DESCRIPTION: Drawn Seamless Tube/Pipe	
KAISER ORDER NUMBER: 224194	LINE ITEM: 001	SHIP DATE: 09/23/2017	KAISER LOT NUMBER: F00250486	ALLOY: 6061	TEMPER: T6
WEIGHT SHIPPED: 474.000 LB	QUANTITY: 585.000 PCS	B/L NUMBER: 226892	DIAM/DAF/THKNS: 	WIDTH: 	LENGTH: 12.000 FT
SHIP TO: TW METALS INC 235 WEST TUBEWAY DRIVE CAROL STREAM, IL 60188 USA			SOLD TO: TW METALS INC 760 CONSTITUTION DRIVE SUITE 204 EXTON, PA 19341 USA		

Actual Physical Properties

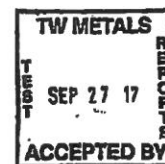
REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	ELONG%	HARDNESS	CON%IACS	BEND
F00250486	0001	1	48.0	41.5	17.0	N/A	N/A	N/A

Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	0.15
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	0.00
D20419	.61	.27	.21	.04	.98	.09	.05	.03	.00	.00	.00	.01	.02

Applicable Requirements:

Description: OD: 0.3750"; Wall: 0.0580"; Round @
AMS4082P AMS-WW-T-700/6C ASTM B210-12
WE TAKE EXCEPTION TO PARA. 5.2.1., Per AMS4082P, WAS NOT OILED.
This Product Complies to FAR BAA, DFARS BAA, FAR TAA
COMPLIES TO DIN EN 10204 JAN 2005
No Weld Repair. Mercury Free.



Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA
MATERIAL COMPLIES WITH FAR BAA (FAR 52.225-1, BUY AMERICAN ACT- SUPPLIES), DFARS BAA (DFARS 252.225-7001 BUY AMERICAN ACT & BAL OF PAYMENTS PROG), AND FAR TAA (FAR 52.225-5 TRADE AGREEMENTS).

Plant Serial: 00026215
Kaiser Order Number: 224194
Line Item: 001

AK

KAISER
ALUMINUM
FABRICATED PRODUCTS

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
6573 W. WILLIS ROAD
CHANDLER, AZ 85226

CERTIFIED TEST REPORT

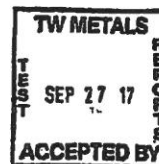
<http://Online.KaiserAluminum.com>

CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC ('Kaiser') hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with the applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms & conditions of sale. Test reports are on file subject to examination.

Hans Kattentidt, Quality Manager

[Handwritten signature]



Plant Serial: 00026215
Kaiser Order Number: 224194
Line Item: 001

[Handwritten initials]

KAISER ALUMINUM FABRICATED PRODUCTS

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
6573 W. WILLIS ROAD
CHANDLER, AZ 85226

CUSTOMER PO NUMBER: M49378297-1		CUSTOMER PART NUMBER: 42276		PRODUCT DESCRIPTION: Drawn Seamless Tube/Pipe	
KAISER ORDER NUMBER: 224471	LINE ITEM: 001	SHIP DATE: 11/07/2017	KAISER LOT NUMBER: F00254239	ALLOY: 6061	TEMPER: T6
WEIGHT SHIPPED: 463.000 LB	QUANTITY: 406.000 PCS	B/L NUMBER: 227417	DIAM/DAF/THKNS: 	WIDTH: 	LENGTH: 12.000 FT
SHIP TO: TW METALS INC 235 WEST TUBEWAY DRIVE CAROL STREAM, IL 60188 USA			SOLD TO: TW METALS INC 760 CONSTITUTION DRIVE SUITE 204 EXTON, PA 19341 USA		

Actual Physical Properties

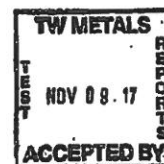
REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	ELONG%	HARDNESS	CON% IACS	BEND
F00254239	0001	1	46.6	40.1	18.0	N/A	N/A	N/A
F00254239	0002	1	44.8	38.8	17.0	N/A	N/A	N/A

Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	0.15
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	0.00
D0674A	.60	.26	.21	.05	.97	.09	.04	.03	.00	.00	.00	.01	.02

Applicable Requirements:

Description: OD: 0.5000"; Wall: 0.0580"; Round @
AMS4082P AMS-WW-T-700/6C ASTM B210-12 WW-T-700/6F
WE TAKE EXCEPTION TO PARA. 5.2.1., Per AMS4082P, WAS NOT OILED.
This Product Complies to FAR BAA, DFARS BAA, FAR TAA
COMPLIES TO DIN EN 10204 JAN 2005
No Weld Repair. Mercury Free.



Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA
MATERIAL COMPLIES WITH FAR BAA (FAR 52.225-1, BUY AMERICAN ACT- SUPPLIES), DFARS BAA
(DFARS 252.225-7001 BUY AMERICAN ACT & BAL OF PAYMENTS PROG), AND FAR TAA (FAR 52.225-5
TRADE AGREEMENTS).

Plant Serial: 00026618
Kaiser Order Number: 224471
Line Item: 001

KAISER
ALUMINUM
FABRICATED PRODUCTS

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
6573 W. WILLIS ROAD
CHANDLER, AZ 85226

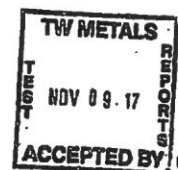
CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC ('Kaiser') hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with the applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms & conditions of sale. Test reports are on file subject to examination.

Hans Kattentidt, Quality Manager



MILL TEST REPORT

Purchaser.: TW METALS-Carol Stream					Certificate No.: 16-1-92				
Contract No.: TWM P.O.No.: M49336439					Date of Issue.: 2016.1.5				
Commodity: Stainless Steel Seamless Tubes			Specifications: ASTM A213-15c/ASME SA213-15/ASTM A269-15a EAW						
Process: Cold Drawn			Delivery Condition: OD Polished to 240 Grit						
Steel Grade	Heat Number	Lot Number	Dimensions			Quantity			
TP304/TP304L	YX1506-712	12-19	1/2" x 0.049" x 20'			Pieces	Feet		
						2300	46,000		
Chemical Composition by Weight (%)									
Element	C	Mn	P	S	Si	Cr	Ni	Mo	Co
Requirements	≤0.035	≤2.00	≤0.045	≤0.030	≤1.00	18.00-20.00	8.00-12.00	-	-
Ladle Analysis	0.013	0.65	0.032	0.002	0.32	18.28	8.05	-	-
Product Analysis	0.017	0.61	0.033	0.002	0.28	18.31	8.55	-	-
Mechanical Properties									
Test Item	Elongation (% in 2")		Tensile Strength (PSI) Rm			Yield Strength (PSI) Rp / 0.2%			
Requirements	≥35		≥75,000			≥30,000			
Test Results	63/64		97,000/98,000			43,000/44,000			
Test Item	Reduction of Area Z (%)	Hardness	Cold Bend Test	Flaring Test	Flattening Test	Flange Test	P.M.I. Test		
Requirements	-	HRB≤80	-	22%	e=0.09	-	-		
Test Results	-	77/79	-	Passed	Passed	-	OK		
Test Item	Eddy Current Test	Air Underwater Pressure Test	Ultrasonic Test	Intergranular Corrosion Test	Macroscopic Inspection				
Requirements	ASTM E 426	-	-	ASTM A262 E	End Cut	Appearance			
Test Results	Passed	-	-	OK	OK	OK			

ISO 9001:2008 Certified by Intertek 110703068

PED Certified by SZUTEST 2195-PED-1526002

Additional Remarks:

- (1) All tubes annealed to above 1900 Deg F and water quenched below 800 Deg F in 3 minutes
- (2) All tubes tested per ASTM A1016-14
- (3) Materials is NACE MR0103-2007 compliant (per Section 2.5)
- (4) Materials is NACE MR0175/ISO 15156-2003 compliant (per Section 4.2.1)
- (5) In Compliance with EN 10204-3.1
- (6) In Compliance with RoHS Stipulation
- (7) No weld repair performed
- (8) Free from mercury contamination
- (9) Free from radioactive contamination
- (10) Billets melt and pipes/tubes manufactured in China
- (11) All tubes 100% PMI tested
- (12) All tubes 100% Eddy Current tested

**CANNOT CERTIFY COMPLIANCE
FAR BAA / DFARS BAA / FAR TAA**



By:

James Shi

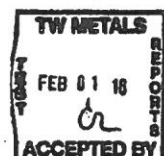
James Shi / Manager

Quality Control Department

We hereby certify that this report is true and correct.

Shanghai Pufa Stainless Steel Pipe Factory

No. 59, Shuangye Road, Wanggang, New Pudong District, Shanghai, China



MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M304Tno.300W.049
 DATE: DEC 12 2017

PO / BATCH NO.: 038581/5010709

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 60"
 QUANTITY INSPECTED: 60"
 QUANTITY REJECTED: 0

THICKNESS ORDERED: .500
 THICKNESS RECEIVED: .500
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	<input checked="" type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y	N	
CORROSION	Y	<input checked="" type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y	N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y	N	<u>Astm A213</u>
CORRECT THICKNESS	<input checked="" type="radio"/> Y	N	
PHOTO REQUIRED	Y	<input checked="" type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y	N	<u>Heat # YX 1506712</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y	N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	<input checked="" type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	<input checked="" type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>rel</u> DAS 38 0-00	SIGNED OFF BY: _____	
DATE: <u>DEC 12 2017</u>	DATE: _____	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 304/316 SS SEAMLESS ROUND TUBING

SPECIFICATION:

ASTM A213 OR ASME SA213 OR ASTM A289

WALL THICKNESS TOLERANCE PER ASTM A289 AS FOLLOWS:

OD (IN)	PERMISSIBLE OD TOL (IN)	PERMISSIBLE WALL TOL
UP TO 1/2	±0.005	±15%
1/2 TO 1 1/2 EXCL.	±0.005	±10%
1 1/2 TO 3 1/2 EXCL.	±0.010	±10%
3 1/2 TO 5 1/2 EXCL.	±0.015	±10%
5 1/2 TO 8 EXCL.	±0.030	±10%

PART NUMBER:

M304TR0.DDD|W|.TTT

WHERE "D.DDD" = OUTSIDE DIAMETER IN INCHES
AND ".TTT" = WALL THICKNESS IN INCHES

EG. 0.375" OD X 0.065" WALL TUBING = M304TR0.375W.065

RELEASED
R 08/28/23 HDB

B	REFORMAT DWG. ADD SPECS (ZN D8-1), REF PAR 08-020A	CP	DS	BY	DATE
A	NEW ISSUE				
REV.	DESCRIPTION				
DESIGN					
DRAWN					
CHECKED					
MFG. APPR.					
APPROVED					
DE APPR.					
DATE	08.10.20				
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA					
DRAWING NO. M304TR					
TITLE 304/316 ROUND TUBING					
SCALE NTS					
REV. B SHEET 1 OF 1					
COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DRAWING IS THE PROPERTY OF DART AEROSPACE LTD. IT IS TO BE USED ONLY FOR THE PURPOSES SPECIFIED HEREIN. NO PART OF THIS DRAWING IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM DART AEROSPACE LTD.					

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061T6 0.3125W.058

PO / BATCH NO.: 03858 / 5020706

DATE: DEC 12 2017

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 100"
 QUANTITY INSPECTED: 100"
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.3125
 THICKNESS RECEIVED: 0.3125
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y <input checked="" type="radio"/> N	
CORROSION	Y <input checked="" type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y <input checked="" type="radio"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y <input checked="" type="radio"/> N	<u>Aston B&B</u>
CORRECT THICKNESS	<input checked="" type="radio"/> Y <input checked="" type="radio"/> N	
PHOTO REQUIRED	Y <input checked="" type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y <input checked="" type="radio"/> N	<u>Heat # 2289533</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y <input checked="" type="radio"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y <input checked="" type="radio"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>[Signature]</u>	SIGNED OFF BY: _____		
DATE: <u>DEC 12 2017</u>	DATE: _____		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

PURCHASE MATERIAL: 6061-T6/T62/T6510/T6511 SEAMLESS TUBING

SPECIFICATION:

WW-T-700/8
OR QQ-A-200/8 OR QQ-A-225/8
OR AMS 4083 OR AMS 4082 OR AMS 4083
OR ASTM B210 OR ASTM B241

PART NUMBER:

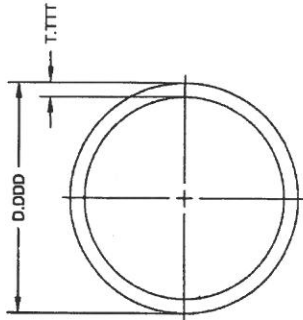
M6061T6T1D.DDD|WT.TTT|
OD WALL

WHERE "D.DDD" = OD IN INCHES
"T.TTT" = WALL THICKNESS

EG. 3/8" OD X 0.058 WALL = M6061T6T0.375W0.058

MATERIAL TOLERANCE:

PER ANSI H35.2



RELEASED
2013-07-02

C	COMPLETE REFORMAT, ADDED T6510 & T6511. ADDED AMS 4083, ASTM B210 & ASTM B241 ADDED MATERIAL TOLERANCE	AJS	13.06.12
B	ADD QQ-A-200/8 & QQ-A-225/8	CP	04.01.23
A	NEW ISSUE	DS	01.06.21
REV.	DESCRIPTION	BY	DATE
DESIGN	AJS		
DRAWN	AJS		
CHECKED	W		
MFG. APPR.	W		
APPROVED	W		
DE APPR.	W		
DATE	13.06.12		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
DRAWING NO. M6061T6T		REV. C	
TITLE 6061-T6 TUBING		SHEET 1 OF 1	
SCALE		NTS	
COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS UNCLASSIFIED AND IS NOT TO BE USED FOR ANY OTHER PURPOSE WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD			

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061 T6 to 5004.058
 DATE: DEC 12 2017

PO / BATCH NO.: 038581/502078

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 100'
 QUANTITY INSPECTED: 100'
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.500
 THICKNESS RECEIVED: 0.500
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	<input checked="" type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y	<input type="radio"/> N	
CORROSION	Y	<input checked="" type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y	<input type="radio"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y	<input type="radio"/> N	<u>Am 54082</u>
CORRECT THICKNESS	<input checked="" type="radio"/> Y	<input type="radio"/> N	
PHOTO REQUIRED	Y	<input checked="" type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y	<input type="radio"/> N	<u>Heat# P00254239 0002</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y	<input type="radio"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y	<input type="radio"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	<input checked="" type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	<input checked="" type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u></u> DATE: <u>DEC 12 2017</u>	SIGNED OFF BY: _____ DATE: _____	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

PURCHASE MATERIAL: 6061-T6/T62/T6510/T6511 SEAMLESS TUBING

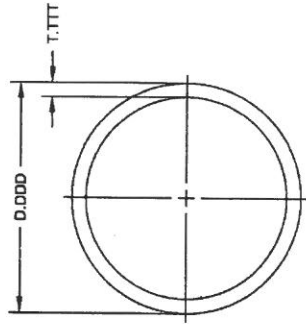
SPECIFICATION: WW-T-7000/8
OR QQ-A-200/8 OR QQ-A-225/8
OR AMS 4080 OR AMS 4082 OR AMS 4083
OR ASTM B210 OR ASTM B241

PART NUMBER: M6061T6T6D.DDD|WT.TTT
OD | WALL

WHERE "D.DDD" = OD IN INCHES
"T.TTT" = WALL THICKNESS

EG. 3/8" OD X 0.058 WALL = M6061T6T6D.375W0.058

MATERIAL TOLERANCE: PER ANSI H35.2 /C



RELEASED
2013-07-02

C	COMPLETE REFORMAT, ADDED T6510 & T6511. ADDED AMS 4083, ASTM B210 & ASTM B241 ADDED MATERIAL TOLERANCE	AJS	13.06.12
B	ADD QQ-A-200/8 & QQ-A-225/8	CP	04.01.23
A	NEW ISSUE	DS	01.06.21
REV.	DESCRIPTION	BY	DATE
DESIGN	AJS		
DRAWN	AJS		
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	13.06.12		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
DRAWING NO. M6061T6T6			
TITLE 6061-T6 TUBING			
SCALE NTS			
REV. C SHEET 1 OF 1			
COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS UNCLASSIFIED AND NOT BE RELEASED WITHOUT WRITTEN PERMISSION OF DART AEROSPACE LTD			

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M606H6T0.375u.058
 DATE: DEC 12 2017

PO / BATCH NO.: 038581 / 5020707

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 1375 100"
 QUANTITY INSPECTED: 100"
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.375
 THICKNESS RECEIVED: 0.375
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	<input checked="" type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y	N	
CORROSION	Y	<input checked="" type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y	N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y	N	<u>Am5 4082</u>
CORRECT THICKNESS	<input checked="" type="radio"/> Y	N	
PHOTO REQUIRED	Y	<input checked="" type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y	N	<u>Heat # P002504860001</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y	N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	<input checked="" type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	<input checked="" type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u></u> DATE: <u>DEC 12 2017</u>	SIGNED OFF BY: _____ DATE: _____	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

PURCHASE MATERIAL: 6061-T6/T62/T6510/T6511 SEAMLESS TUBING

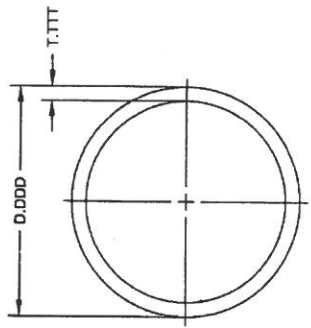
SPECIFICATION: WW-T-700/6
OR QQ-A-200/8 OR QQ-A-225/8
OR AMS 4080 OR AMS 4083
OR ASTM B210 OR ASTM B241

PART NUMBER: M6061T6T1D.DDD|WIT.TTT
OD | WALL

WHERE "D.DDD" = OD IN INCHES
"T.TTT" = WALL THICKNESS

EG. 3/8" OD X 0.058 WALL = M6061T6T0.375W0.058

MATERIAL TOLERANCE: PER ANSI H35.2



RELEASED
2013-07-02

C	COMPLETE REFORMAT, ADDED T6510 & T6511. ADDED AMS 4083, ASTM B210 & ASTM B241 ADDED MATERIAL TOLERANCE	AJS	13.06.12
B	ADD QQ-A-200/8 & QQ-A-225/8	CP	04.01.23
A	NEW ISSUE	DS	01.08.21
REV.	DESCRIPTION	BY	DATE
DESIGN	AJS		
DRAWN	AJS		
CHECKED	W		
MFG. APPR.	W		
APPROVED	W		
DE APPR.	W		
DATE	13.06.12		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
DRAWING NO. M6061T6T			
TITLE 6061-T6 TUBING			
SCALE NTS			
SHEET 1 OF 1			
REV. C			
COMPANY 6061 BY DART AEROSPACE LTD			
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